

IHRA – ITS WG Report to Steering Committee

**11th IHRA
Steering
Committee
Meeting**

Washington
May 10, 2002

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Members

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- Mr. Daniel Augello, France
- Dr. August Burgett, U.S.A.
- Dr. med. B. Friedel, Germany
- Mr. Geoff Harvey, England
- Dr. Kaneo Hiramatsu, Japan
- Mr. Ray Kiefer, U.S.A.
- Dr. Ian Noy, *Chairman*, Canada
- Mr. Christopher Patten, Sweden
- Mrs. Annie Pauzié, France


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Meetings

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- 9. June 6-7, 2000, Amsterdam, The Netherlands
- 10. November 22-23, Cologne, Germany


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Outline

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- Terms of Reference
- Projects Update
- National Reports
- UN ECE WP.29 Liaison
- EC Liaison

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Mandate

- The long-term mandate of the Working Group is to coordinate international policy-oriented research to minimize the potential adverse consequences of on-board ITS technologies.

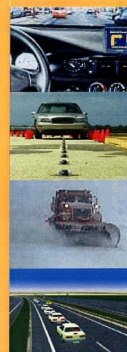
Mission

- The long-term goal of the Working Group is to develop procedures for the evaluation of safety of in-vehicle information, control and communication systems.
- The principal objective for the next two years, however, is to provide an international view of the state of research into understanding the safety impact of driver workload and distraction.

Scope

- The scope of ITS equipment includes original and aftermarket on-board information and communication systems. These include telematics, driver assistance systems and collision warning and avoidance systems.
- The initial focus is telematics, due to concern over the increased risk associated with driver distraction.

Levels of Automation

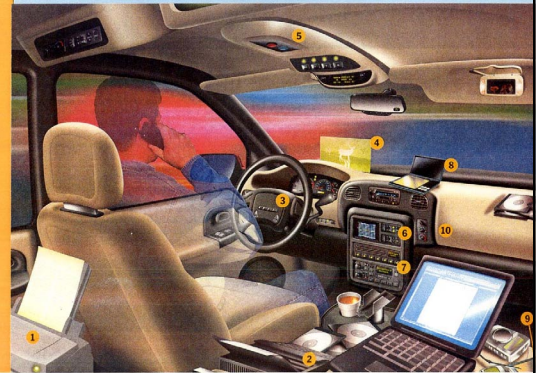


- Information
- Warning
- Driver assistance (active pedal)
- Partial control of vehicle functions (steering, ACC)
- Complete control of vehicle (AHS)

Vehicle-based Driver Assistance and Crash Avoidance Systems

- Vision enhancement & visual range warning
- Intelligent speed adaptation
- Adaptive cruise control
- Collision warning (e.g., lane departure, rear-end, lane change, intersection)
- Fatigue/impairment warning
- Pavement monitoring and friction warning
- Vehicle Stability Warning and Assistance
- Emergency reporting and response
- Backing and merging aids

The Mobile Office



Action Plan

- Publish a compendium concerning the safety impact of driver workload and distraction.
- Update database of current test and evaluation of on-board ITS systems

Action Plan

- Results of on-going national research will be shared, including
 - TC research on driver expectations
 - NHTSA's research on normative naturalistic driving
 - Results of EC RESPONSE I

Action Plan

- Workshop on simulator reference test scenarios.
- Publish German-Swedish joint studies on driver workload
- A special ESV session on driver-vehicle interaction, which might include driver workload, will be proposed for the next ESV conference to be held in Nagoya.

Action Plan

- Explore the possibility of personnel exchanges, (cross industry-government, etc.) as a further form of collaboration.
- The scope of the WG will be reviewed and an expansion into new areas will be elaborated. The need for sub-groups will be considered.
- Other relevant government research will be shared among WG members.

Project 1: Development of a Harmonized Safety Evaluation Methodology Framework

- Work is underway at LAB (Laboratoire accidentaux biomechaniques, joint Renault and PSA). Project timeframe January 2002 to 2005.
- Work underway within the SNRA/BASt/JARI collaboration will need to be integrated.
- In addition, possible collaboration between HASTE and CAMP will be considered.
- A workshop (or series) should be held at the conclusion of these projects (e.g., 3 years hence) to compare results and extract useful knowledge.

Project 2: Driver Understanding and Expectation of ITS Systems

- Canadian simulator and field studies of behavioural adaptation to lane departure warning systems were designed to include post-test sessions to investigate drivers' expectations and reliance on the system under degraded reliability conditions.

Project 3: Human Factors Principles Checklist For In-Vehicle Systems

- The TRL recommendations were analyzed in relation to the overall mapping of ESoP and TRL checklist. This table was provided to WG members.

Project 4: Normative Data On Naturalistic Driving Behavior

- No new information was presented about the NHTSA study.
- Japan (METI) is conducting naturalistic driving studies in simulator and field settings. Additional information about this work will be provided to WG members.

Project 5: Simulator Reference Test Scenarios

- The workshop planned for 2001 was postponed due to travel restrictions. The WG will investigate alternative opportunities for the workshop (e.g., NADS/Iowa, VTI/Linköping)


Project 6: Improved Secondary Task Methodology For Evaluating Safety Effects of Driver Workload

- Work underway through the SNRA/BAST collaboration is the first major activity under this project. JARI has offered to join this project and this will be formalized in the near future. Japan will consider how current JARI research can be integrated in the matrix of common elements.
- First German-Swedish results may be available in the Spring 2002.
- A presentation may be made at the next WG meeting.

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Project 7: Harmonization and Validation Of Surrogate Safety Measures


- No additional information was presented.

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Collaboration with EC


- WG wrote to European Commission to offer the help of the Working Group in consolidating and summarizing the results of the current survey concerning the European Statement of Principles, and to help develop conclusions.
- We have received a positive reply with an indication that more is forthcoming.
- Considering holding a European meeting to discuss common issues associated with the use of the ESoP

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UN-ECE WP.29


- Presentation to AC.2, Administrative Committee, and WP.29 with respect to the work of the WG.
- The principal objectives were to introduce WP 29 to the challenges posed by ITS and to recommend that WP consider how ITS-related activities might be integrated into its work program.
- Recommended creation of GR on ITS as a long-term goal

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UN-ECE WP.29

- WP.29, welcomed the offer of the IHRA-ITS WG to work in close cooperation with WP.29
- As a follow up, attended the February 2002 meeting of GRRF.
- WP.29 formed an ad-hoc group led by Japan to consider ITS issues and to plan for a Roundtable Discussion to the UN ECE Land Transport Committee scheduled for February 2003.

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Future

➤ Next meeting in Sweden, June 19-20

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